UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
2628	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

	Application No.	Applicant(s)
Office Action Summary	10/556,820	KOYAMA, NORIYUKI
	Examiner	Art Unit
	DANIEL WASHBURN	2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 December 2008</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>13-15 and 17-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>13-15 and 17-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

As an initial matter, the 35 USC Section 101 rejection of claim 24 has been withdrawn in view of the applicant's amendment. Page 26 lines 5-15 of the applicant's specification describes various recording media, which is considered support for the applicant's amendment.

Page 9 of the applicant's arguments describe a request for further explanation "of the statement that the adjusting of one method to another's distance in the prior art reference are reversed of those in the claimed invention. In particular, Applicant requests an explanation of what it is that is reversed."

The applicant's claimed invention describes, in part, (b) quantizing a sum of distances between the scaled reference points by a first method…(c) quantizing the distances between the scaled reference points by a second method…and (d) adjusting at least one of the distances quantized by the second method such that a sum of the distances quantized by the second method equals the sum quantized by the first method.

The Miura reference describes, in part,

(b) quantizing a sum of the distances between the scaled reference points by a first method so as to generate a sum quantized by the first method (page 2 last 4 lines describes "an integer space calculation part which extracts the y coordinate of horizontal line outline coordinate and the x coordinate of vertical line outline coordinate from the character outline coordinate data separated by said closed graphic separation

part". This is considered quantizing a sum of the distances between the scaled

reference points *(pg. 2 lines 5-15 describes that the character coordinates are*

transformed (scaled) into coordinate data for a specific character size) by a first method

so as to generate a sum quantized by the first method (see pg. 10 lines 4-10 and pg. 13

lines 3-10 for support regarding quantizing the sum of the distances between the scaled

reference points));

(c) quantizing the distances between the scaled reference points by a second

method so as to generate distances quantized by the second method (pg. 3 lines 1-10

describes acquiring "the respective spaces between the adjacent coordinate values for

the above-mentioned extracted y coordinate of the horizontal line outline coordinate and

the x coordinate of the vertical line outline coordinate, and mak[ing] said spaces into

respective integer values". This is considered quantizing the distances between the

scaled reference points by a second method so as to generate distances quantized by

the second method (see pg. 9 line 15 through pg. 10 line 2 and pg. 13 lines 3-10 for

further support regarding quantizing the distances between the scaled reference points

by a second method so as to generate distances quantized by the second method));

and

(d) adjusting at least one of the distances quantized by the *first* method such that

a sum of the distances quantized by the second method equals the sum quantized by

the first method (pg. 3 lines 5-20 describes "a whole length correction part which totals

the spaces which were made into integers by said integer space calculation part and

corrects at least one space of the areas having spaces transformed into integers when

a gap is created between said total value and the whole length of the character in order

to make said total value coincide with the whole length; and a coordinate point

correction part which recalculates the above-mentioned y coordinate of the horizontal

line outline coordinate and the x coordinate of the vertical line outline coordinate by

adding the space corrected by said whole length correction part". Thus, the method

corrects at least one space of the areas having spaces transformed into integer

distances when a discrepancy exists between the total quantized length and the sum of

the quantized distances, adds this value to the total quantized length, and then adjusts

the positions of the coordinate points along the vertical and horizontal lines to reflect the

changed at least one space in the coordinate data, which is considered adjusting at

least one of the distances quantized by the first method such that a sum of the

distances quantized by the second method equals the sum quantized by the first

method (also see pg. 13 line 11 through pg. 15 line 16 and pg. 16 lines 9-16).

Thus, the method described by Miura includes adjusting at least one of the

distances quantized by the first method such that a sum of the distances quantized by

the second method equals the sum quantized by the first method, which is considered

the reverse of the applicant's limitation (d), but applicant's limitation (d) is considered

obvious in view of the teachings of Miura, as the end result in each case is that the sum

of the distances quantized by the second method equals the sum quantized by the first

method.

As to the applicant's argument that "Miura seeks to adjust line width for clarity,

[while] the present invention seeks to adjust relative distance between strokes to

preserve proportion", the examiner contests that Miura also describes adjusting the relative distance between strokes to preserve dimensional proportion of a character, by determining the height or width error of a quantized character (pg. 13 lines 2-17), and then adjusting the height or width of the character in a uniform and symmetric fashion by adding to either the stroke width, the space between stroke width, or both, until the height and/or width error of the character has been reduced to an acceptable level (pg. 14 line 5 through pg. 18 line 16).

In response to the applicant's request that a reference be provided as a basis for the examiner's official notice in the rejection of the limitation originally found in claim 16, the examiner has added Kurachi (US 5,471,550) into the rejections that follow. The Kurachi reference describes adjusting distances of strokes having larger quantization error with priority, as discussed below. The examiner would like to note that the reference has been added to the rejections in response to the applicant's request, therefore this action is still made final (see MPEP 2144.03 [R-6] Sections C and D).

Applicant's arguments regarding the teachings of Miura pertaining to 'adjusting a distance having a larger quantization error...' are considered moot in view of the teachings of Kurachi.

Duplicate Claims Objection

Applicant is advised that should claim 24 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing

one claim to object to the other as being a substantial duplicate of the allowed claim.

See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

3.   Claims 13-15, 17 and 19-25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Miura et al. (Japanese Pub. 04-188190) in view of Kurachi (US

5,471,550).

In re claims 13, 23-25, Miura et al. discloses a display device (Fig. 1, 3) for

displaying a character or graphic; and a control section (Fig. 1, 2) for controlling the

display device wherein the control section executes character/graphic display

processing and the character/graphic display processing includes the steps of:

(a) scaling a character or graphic including reference points along a specific axis so as

to generate scaled reference points (Page 2, second paragraph)

(b) quantizing a sum of distances between the scaled reference points by a first method

so as to generate a sum quantized by the first method (Page 2, last paragraph)

(c) quantizing the distances between the scaled reference points by a second method

so as to generate distances quantized by the second method (Page 3, lines 5-10)

(d) adjusting at least one of the distances quantized by the first method such that a sum

of the distances quantized by the first method equals the sum quantized by the second

method (Page 3, lines 11-20)

(e) displaying the scaled character or graphic based on the scaled reference points

accompanying the at least one adjusted distance (Fig. 1, 3).

The adjusting of one method to another's distance in the prior art reference are

reversed of those in the claimed invention, however, Examiner takes the position that it

would have been obvious to reversing the adjustment of methods because it does not

affect the ultimate result of the system and therefore the reversing of adjusting of

methods is an alternative way such adjustment.

Muira doesn't describe but Kurachi describes

step (d) includes the step of adjusting a distance having a larger quantization

error caused by the second method with priority, among distances quantized by the

second method (7:56-8:29 and FIG. 2 describe a system and method wherein a

character outline is retrieved from memory, scaled to the desired size, and then each

segment of the character outline is evaluated to determine "whether a offset error

produced when the straight line element determined by the direction determining means

M4 is converted to a dot image deviates from a predetermined tolerance range; a

correction means M6 for correcting the straight line segment determined by the offset

error determining means so the quantization error of the straight line segment does not

exceed the tolerance range; and a filling-in means M7 for converting the outline data

including the straight line segment corrected by the correction means M6 to a dot image

by a picture element determining means M7a". Thus, Kurachi is considered to describe

a system and method wherein the one or more segments having the largest

quantization error (i.e., larger than the threshold value) are given priority, among the

quantized segments, in order to reduce or eliminate the most noticeable errors when

quantizing the character outline data.

All the elements of claims 13 and 23-25 are known in Muira and Kurachi, the only

difference is the combination of known elements into a single system and method.

Thus, it would have been obvious to one of ordinary skill in the art at the time of

the invention to include in Muira a system and method including adjusting a distance

having a larger quantization error caused by the second method with priority, among the

distances quantized by the second method, as suggested by Kurachi, as this doesn't

change the overall operation of the system, and it could be used to achieve the

predictable result of adjusting the segments that have the largest quantization error first,

which reduces or eliminates the most noticeable errors when scaling and quantizing the

character outline data.

In re claim 14, Miura et al. discloses wherein the quantization by the second

method is performed in consideration of a distance flag representing a minimum

necessary distance as a distance (Page. 12, third paragraph)

In re claim 15, Miura et al. discloses wherein step (d) is performed in consideration of a distance flag representing a minimum necessary distance as a distance quantized by the second method (Page. 12, third paragraph).

In re claim 17, Miura et al. discloses (d) includes the step of extending at least one of the distances quantized by the second method (page 14, last paragraph).

In re claim 19, Miura et al. discloses wherein step (d) includes the step of making at least one of the distances quantized by the second method zero (Page 14, first paragraph).

In re claim 20, Miura et al. discloses step (e) includes the step of displaying a first point which is a prescribed point on the scaled character, such that a value of distance a/distance b is closest to a value of distance A/distance B, where: a second point which corresponds to the first point and is on the pre-scaling character is between a first reference point and a second reference point adjacent to each other, among the pre-scaling reference points; distance A is a distance between the second point and the first reference point; distance B is a distance between the second point and the second reference point; distance a is between the first point and the scaled first reference point; and distance b is between the first point and the scaled second reference point (Page 17, the formula in the page).

In re claim 21, Miura et al. discloses the character is formed of a plurality of blocks;
and the character/graphic display processing further 5 includes the step of executing steps (b) through (d) for each of the plurality of blocks (Page 11, last paragraph).

In re claim 22, Miura et al. discloses wherein the step of making at least one of the distances quantized by the second method zero is performed in consideration of a flag which represents a position of a distance to be made zero in the order by which the at least one of the distances is made zero (Page 14, first paragraph).

4.	Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miura et al. (Japanese Pub. 04-188190) in view of Kurachi (US 5,471,550) and further in view of Ogawa (Japanese Pub. 07-036434).

In re claim 18, it is noted that the Miura et al. doesn't explicitly disclose shortening the distance. However, Naomi discloses shortening the distance [0012]. It would have been obvious to one of ordinary skill to combine the character drawing of Miura et al. with the shortening of Ogawa with the motivation of shortening if the integerization rounded up instead of down.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Aoki (US 5,473,709) describes a system and method for converting character outline data into dot-matrix data for display or printing.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DANIEL WASHBURN whose telephone number is

(571)272-5551. The examiner can normally be reached on Monday through Friday 8:30

a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ulka Chauhan can be reached on (571) 272-7782. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dan Washburn/   /Kee M Tung/
Examiner, Art Unit 2628   Supervisory Patent Examiner, Art
4/2/09   Unit 2628